**FUTURE FISHERIES IMPROVEMENT PROGRAM**
**GRANT APPLICATION**
*(please fill in the highlighted areas)*

## I. APPLICANT INFORMATION

A. Applicant Name: Ruby Valley Conservation District

B. Mailing Address: PO Box 295

C. City: Sheridan State: MT Zip: 59749

Telephone: 406-842-5741

D. Contact Person: Shirley Galovic, District Administrator or Rebecca Ramsey, Ruby Watershed Coordinator

Address if different from Applicant:

City: State: Zip:

Telephone:

E. Landowner and/or Lessee Name (if other than Applicant): Miller Ranch and Cattle Company, Rob Miller, owner

Mailing Address: PO Box 184

City: Alder State: MT Zip: 59710

Telephone: 406-842-5352

## II. PROJECT INFORMATION*

A. Project Name: Miller Ranch Ruby River Restoration

River, stream, or lake: Ruby River

Location: Township 6S Range 4W Section 20

County: Madison

B. Purpose of Project:

Until the Ruby Reservoir was built in the late 1930s, specifically for agricultural use, the Ruby River meandered along a naturally sinuous riparian course. The lower Ruby River was then straightened, the banks hard armored, and the banks stripped of vegetation in order to move as much water, as quickly as possible for irrigation efficiency.

In 1995, the Ruby Watershed Council conducted a survey of the lower Ruby River and identified streamside areas of high use that had potential water quality impairment issues and deemed the section of river where the project area is located a priority site.

As stated in the Ruby River TMDL document, this project is part of a larger effort to "ensure full recovery of aquatic life beneficial uses to all impaired and threatened streams identified by the State of Montana within the Ruby River TPA". The entire lower Ruby River, (from below the Ruby Reservoir Dam to the mouth with the Beaverhead River) is identified as impaired. Causes of impairment at the project site include, fish habitat degradation, flow alteration, riparian degradation, siltation, channel incisement, and thermal modifications. And based on the macroinvertebrate sampling in the area, impairment is primarily related to elevated temperatures and nutrient enrichment. FWP biologists have indicated this area is practically devoid of trout.

In 2008 the Miller Family hired Gillilan Associates Inc., to develop a conceptual plan and feasibility study for the re-introduction of natural channel sinuosity to an approximate 1,800 foot reach of the Ruby River on their ranch. In 2011, with the assistance of a planning grant from Montana DEQ, the final engineering and design report was completed which included: specific topographic surveying; geomorphic channel analysis; identification of reference channel cross-sections; sub-surface investigations in potential channel alignments; development of new channel planform; identification of principle bioengineering construction techniques and project construction cost estimates. This project is construction ready pending funding and final permitting.

Reclamation of this site, includes elimination of the straightened, hardened banks; increasing wetland habitat; returning the channel to its natural planform with increased sinuosity, spawning and respite habitat for trout; improved riparian vegetation; relocation of a feedlot that will have the potential to impact the newly constructed channel; and additionally has caused a ripple effect of landowner participation in this reach of stream, and will be a pilot water quality monitoring project in the Ruby Watershed with the Alder School, and contribute to fish data monitoring with FWP.

Many of the water and habitat quality concerns will be addressed and alleviated. This project will help the Ruby Watershed Council meet the overall goals of the targeted TMDLs for the lower Ruby River by improving the cold water fishery, habitat & aquatic life by reducing the nutrients, sediments and siltation and velocity of the water in the system as well as decreasing the temperature through vegetative canopy and soft bank stabilization.

This project will also meet several of the priorities of the Ruby Watershed Council by using a collaborative, interagency approach to implement and monitor identified restoration projects that promote and improve water and habitat quality within the Ruby Watershed. Additionally there is 99% landowner participation in a watershed assessment to be done by an NRCS state team in 2012 to help identify highest priority conservation needs on this stretch of Ruby that was spurred by the support of this project, which is unique in the Ruby at this time.

C. Brief Project Description:

Specifically, this project will restore a straightened, hardened channel of the Ruby River to its natural planform, increasing wetlands, vegetative cover, fish & wildlife habitat, and reduce sediment loading and transport. It involves relocation of livestock feeding corrals; installation of a new bridge; purchase the geotextile fabric for bank construction and stabilization; harvest, transport, soaking and installation of dormant willow stems and willow clumps; riparian fencing and grazing management; and development of a community volunteer monitoring program with the help of a Big Sky Watershed Corps member, starting with this project and the Alder school.

D. Length of stream or size of lake that will be treated: Approx. 1800ft of stream

E. Project Budget:

**Grant Request (Dollars): $ 40,661.00**

Contribution by Applicant (Dollars): $ _____ In-kind $ 7,000.00
(salaries of government employees are not considered as matching contributions)

Contribution from other Sources (Dollars): $ 455,651.00 In-kind $ 38,000.00
(attach verification - See page 2 budget template)

**Total Project Cost: $ 485,651.00**

F. Attach itemized (line item) budget – see template

G. Attach specific project plans, detailed sketches, plan views, photographs, maps, evidence of landowner consent, evidence of public support, and/or other information necessary to evaluate the merits of the project. If project involves water leasing or water salvage complete supplemental questionnaire (fwp.mt.gov/habitat/futurefisheries/supplement2.doc).

H. Attach land management and maintenance plans that will ensure protection of the reclaimed area.

## III. PROJECT BENEFITS*

A. What species of fish will benefit from this project?:

Rainbow Trout, Brown Trout, Mountain Whitefish, Mottled Sculpin

B. How will the project protect or enhance wild fish habitat?:

The project will be adding sinuosity, pools, riffles, cobble bottom and other habitat diversity to the river, as well as adding willow clumps, willow stems and other vegetation which will create cover and shade to cool the water temperature and protect young fish from predators.

C. Will the project improve fish populations and/or fishing? To what extent?:

This project will provide direct fisheries benefits by improving habitat quality and quantity. The submitted design intends to restore diverse natural habitat features and, more importantly, long term natural habitat-forming fluvial processes to an entirely channelized reach of the Ruby River. Because this project will also increase channel length there will be a direct net increase in habitat resulting from this project. Because the Miller family provides reasonable public access and this site is located proximal to an existing public fishing access site, it is anticipated that there will be direct public benefits realized from this project upon completion and well into the future.

D. Will the project increase public fishing opportunity for wild fish and, if so, how?:

The Miller Family has always allowed fishing access by permission on this stretch of river, which is nearby their home. This stretch is also accessible from a downstream public fishing access through the stream access law within the high water mark, however is rarely fished by the public because of the nature of the straightened, hardened condition of the river – lack of habitat creates lack of fish population in this stretch, though the whole of the Ruby is a Blue Ribbon trout stream.

Completion of this project will increase the population of wild fish, provide potential spawning habitat, as well as the opportunities for fishing. The Millers will continue to allow access for fishing by permission, and intend on offering the completed project site for educational opportunities, including hosting the annual Kid's River Resource Day, as well as a tour for natural resource professionals and local landowners, and piloting the Ruby Watershed Council's volunteer community monitoring project.

E. If the project requires maintenance, what is your time commitment to this project?:

The construction is likely to commence in the autumn of 2012, depending on funding and water levels. The Millers will develop an operation and maintenance agreement within their contract with NRCS that includes riparian fencing, grazing management, invasive species management and management of the vegetative portion of the project for a15 year minimum up to 30 years or more, dependent on the program. The Millers have worked with NRCS in the past for conservation projects and planning, and NRCS has been involved in this project since its inception in 2008, providing technical assistance & review. The Miller Family will be enrolling in an NRCS financial assistance program that will allow them to take the engineered design to a construction contractor to build. The design incorporated the knowledge of a team of engineers, hydrologists, geomorphologists and biologists and has been reviewed and approved by the Ruby Valley Conservation District, the Ruby Watershed Council's Technical Advisory Committee, as well as the state NRCS engineers.

Miller Ranch & Cattle Company will be the lead on-site project managers overseeing all aspects of construction. They will be in regular communication with the Ruby Valley Conservation District and Ruby Watershed Council who will be administering the non-federal funds.

Specific to this project, photo points will be established pre-construction, and photos will be taken at these points during and after construction, with photo monitoring annually for five years to gauge vegetation & channel construction success.

Montana FWP will be monitoring fish numbers in this section pre and post construction and annually for five years.

The Ruby Watershed Council & Alder School will collaborate for water quality monitoring, specific to temperature & turbidity monitoring at the project site and nearby FWP fishing access site. The Ruby Valley Conservation District will be applying for a 2012 Big Sky Watershed Corps member to work with the Ruby Watershed Council and their Technical Advisory Committee to develop a community volunteer monitoring program, beginning with monitoring of this project. The community volunteer monitoring program is meant to capture baseline data on water quality, and then collect data annually perpetually, with the goal of estimating load reductions. The RWC wants this program to expand to develop baseline data, and continued data collection to include (but is not limited to): water quantity, weeds, plants, fish, wildlife, birds, invertebrates, etc.

F. What was the cause of habitat degradation in the area of this project and how will the project correct the cause?:

Miller Ranch and Cattle Company, located on the Lower Ruby River, upstream from Alder, Montana, has been in existence for nearly 60 years under current family ownership. When the Ruby Reservoir was created for agricultural use, much of the river was straightened, channelized, hardened and stripped of vegetation to increase the efficiency of agricultural operations. The landowner had a desire as a youngster to restore the Ruby to its original channel, but was scoffed at by his elders. As the Miller's operation has evolved into using more sprinkler irrigation, and the generations of the family have been involved in various organizations & educational activities as well as management of recreational ranching properties, the Millers recognized the need for habitat diversity and water quality improvement on the section of the Ruby that runs through their homeplace. They began by hiring an engineer to develop a preliminary design in 2008 to restore the Ruby River to its natural planform, adding pools, riffles, spawning habitat and habitat improvements; addressing sediment control/bank stabilization and cooling water temperatures, as well as increasing wetland capacity.

The lower section of the Ruby River from the outlet of the Ruby Reservoir to the confluence with the Beaverhead River is named on the 303d list of impaired streams for excessive sediment and temperature as well as nutrient loads. The RVCD was awarded a 319 grant in 2010 to complete the final engineering and design for this project, which has been reviewd by the state NRCS engineers and approved by the RVCD and their Technical Advisory Committee (TAC.)

The design requires construction of a new, engineered bridge; moving a feedlot that NRCS had assisted with moving from the main stem of the Ruby; restoring a historical channel to be the main flow, with existing channel as overflow/wetland capacity; construction of new banks and stabilization of existing banks and vegetative harvest and installation. Additionally, this project will serve as a showcase of water quality and habitat improvement for other landowners on waterways within the Ruby Watershed, and as an educational opportunity to begin a community volunteer monitoring program, which is a high priority for the Ruby Watershed Council and Ruby Valley Conservation District. The monitoring will begin by involving elementary school students in Alder. The Millers have also committed to be a host site for Kid's River Resource Day once construction has been completed. The landowners are working closely with NRCS to decide the best conservation program to fit their needs, and to assist with the major portion of funding for this project.

G. What public benefits will be realized from this project?:

Improved water quality, increased trout population, increased wetland habitat, improved habitat for birds and other wildlife, continued fishing access by permission, better fishing in the stretch accessed from the FWP access just downstream.

H. Will the project interfere with water or property rights of adjacent landowners? (explain):

No.

I. Will the project result in the development of commercial recreational use on the site?: (explain):

No.

J. Is this project associated with the reclamation of past mining activity?:

No.

**Each approved project sponsor must enter into a written agreement with the Department specifying terms and duration of the project.**

## IV. AUTHORIZING STATEMENT

I (we) hereby declare that the information and all statements to this application are true, complete, and accurate to the best of my (our) knowledge and that the project or activity complies with rules of the Future Fisheries Improvement Program.

Applicant Signature: _____ Date: _____

Sponsor (if applicable): _____

***Highlighted boxes will automatically expand.**

**Mail To:** **Montana Fish, Wildlife & Parks**
**Habitat Protection Bureau**
**PO Box 200701**
**Helena, MT 59620-0701**

**Incomplete or late applications will be returned to applicant.**

**Applications may be rejected if this form is modified.**

*****Applications may be submitted at anytime, but must be received by the Future Fisheries Program office in Helena before December 1 and June 1 of each year to be considered for the subsequent funding period.*****